

Application No. 10/686,138
Amendment dated May 13, 2008
Reply to Office Action of April 16, 2008

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REMARKS/ARGUMENTS

Applicant has carefully reviewed and considered the Office Action mailed on April 16, 2008, and the references cited therewith.

Claim 1 is amended, and no claims are canceled or added; as a result, claims 1-9, 12-19, and 22-24 are now pending in this application.

§ 102 Rejection of the Claims

Claims 1, 4-8, 13, 14 and 16-18 were rejected under 35 USC §102(b) as being anticipated by Melzer et al. (U.S. Patent No. 6,280,385 B1). Applicant respectfully traverses the rejection as follows.

With regard to independent claims 1 and 13, Applicant respectfully submits that the Melzer reference does not describe or teach each and every element recited in independent claim 1 and 13. Page 3 of the Office Action mailed April 16, 2008, states that the Melzer reference discloses a stent comprising:

a RF marker (2) that forms generally concentric loops on only one side (for example, only the outside), or on only the peripheral surface of the structure that delineates a circumference (for example, only on the outside); of each of the cells (for example, see Figure 6) capable of generating RF energy under a magnetic field.

Column 10, lines 37-41, of the Melzer reference states:

FIG. 6 depicts an alternative exemplary embodiment of a stent 1', that forms an inductor 2' and a capacitor 3'. The inductance here is provided in the form of a helix shaped coil 5 that is not formed by the skeleton of the stent itself, but is an additional wire woven into stent skeleton 101.

By so stating, the Melzer reference appears to describe a coil 5 woven into stent skeleton 101 in a helix shape, as shown in Figure 6 of the reference. Figure 6 of the reference appears to show that stent skeleton 101 defines a number of diamond-shaped areas, e.g., cells. Figure 6 also appears to show that coil 5 is woven through each cell, e.g., from a first side to a second side of each cell. Further, coil 5 appears to pass through each individual cell side only once, at a single point. That is, coil 5 appears to form a helix on the stent as a whole. Hence,

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the Melzer reference does not appear to describe that coil 5 forms generally concentric loops on only one side of each cell defined by stent skeleton 101.

In contrast, independent claim 1 recites a stent, comprising "a radio frequency (RF) marker that forms generally concentric loops on only one side of each of the first cell and the second cell of the generally tubular structure."

In addition, Figure 6 of the Melzer reference appears to show that coil 5 is woven through the entire length of stent skeleton 101. Further, Figure 6 appears to show that coil 5 passes through each individual cell side only once, at a single point, as previously discussed above. Hence, the Melzer reference does not appear to describe that coil 5 is located on only a peripheral surface of the stent that defines two or more cells at a first end of the stent, or that coil 5 delineates a circumference of each cell defined by stent skeleton 101.

In contrast, independent claim 13 recites a medical device for use in a body cavity, comprising:

a structure formed of a material substantially invisible under magnetic resonance imaging (MRI) visualization, where a peripheral surface of the structure defines two or more cells at a first end of the structure; and

a radio frequency (RF) marker located on only the peripheral surface of the structure that delineates a circumference of each of the two or more cells of the structure to emit sufficient RF energy under MRI visualization to disturb hydrogen atom spins of at least one voxel.

As such, Applicant respectfully submits that each and every element and limitation of independent claims 1 and 13 is not described or taught by the Melzer reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection of independent claims 1 and 13, as well as those claims that depend therefrom.

§103 Rejection of the Claims

Claims 2, 3, and 15 were rejected under 35 USC § 103(a) as being unpatentable over Melzer et al. (U.S. Patent No. 6,280,385 B1) in view of Doran et

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al. (U.S. Publication No. US 2002/0055770 A1). Applicant respectfully traverses the rejection as follows.

Claims 2 and 3 depend from independent claim 1, and claim 15 depends from independent claim 13. Applicant respectfully submits that independent claims 1 and 13 are in condition for allowance. From Applicant's review of the Doran reference, the Doran reference does not cure the deficiencies of the Melzer reference. That is, the Doran reference does not describe, teach, or suggest a stent, comprising "a radio frequency (RF) marker that forms generally concentric loops on only one side of each of the first cell and the second cell of the generally tubular structure," as recited in independent claim 1, nor does the Doran reference describe, teach, or suggest a medical device for use in a body cavity, comprising:

a structure formed of a material substantially invisible under magnetic resonance imaging (MRI) visualization, where a peripheral surface of the structure defines two or more cells at a first end of the structure; and

a radio frequency (RF) marker located on only the peripheral surface of the structure that delineates a circumference of each of the two or more cells of the structure to emit sufficient RF energy under MRI visualization to disturb hydrogen atom spins of at least one voxel,

as recited in independent claim 13. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 2, 3, and 15.

Claims 9 and 19 were rejected under 35 USC § 103(a) as being unpatentable over Melzer et al. (U.S. Patent No. 6,280,385 B1) in view of Case et al. (U.S. Publication No. US 2004/0167619 A1). Applicant respectfully traverses the rejection as follows.

Claim 9 depends from independent claim 1, and claim 19 depends from independent claim 13. Applicant respectfully submits that independent claims 1 and 13 are in condition for allowance. From Applicant's review of the Case reference, the Case reference does not cure the deficiencies of the Melzer reference.

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That is, the Case reference does not describe, teach, or suggest a stent, comprising "a radio frequency (RF) marker that forms generally concentric loops on only one side of each of the first cell and the second cell of the generally tubular structure," as recited in independent claim 1, nor does the Case reference describe, teach, or suggest a medical device for use in a body cavity, comprising:

a structure formed of a material substantially invisible under magnetic resonance imaging (MRI) visualization, where a peripheral surface of the structure defines two or more cells at a first end of the structure; and

a radio frequency (RF) marker located on only the peripheral surface of the structure that delineates a circumference of each of the two or more cells of the structure to emit sufficient RF energy under MRI visualization to disturb hydrogen atom spins of at least one voxel,

as recited in independent claim 13. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 9 and 19.

Claims 12 and 22 were rejected under 35 USC § 103(a) as being unpatentable over Melzer et al. (U.S. Patent No. 6,280,385 B1) in view of Jackson et al. (U.S. Publication No. US 2003/0004563 A1). Applicant respectfully traverses the rejection as follows.

Claim 12 depends from independent claim 1, and claim 22 depends from independent claim 13. Applicant respectfully submits that independent claims 1 and 13 are in condition for allowance. From Applicant's review of the Jackson reference, the Jackson reference does not cure the deficiencies of the Melzer reference. That is, the Jackson reference does not describe, teach, or suggest a stent, comprising "a radio frequency (RF) marker that forms generally concentric loops on only one side of each of the first cell and the second cell of the generally tubular structure," as recited in independent claim 1, nor does the Jackson reference describe, teach, or suggest a medical device for use in a body cavity, comprising:

a structure formed of a material substantially invisible under magnetic resonance imaging (MRI) visualization, where a peripheral

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surface of the structure defines two or more cells at a first end of the structure; and

a radio frequency (RF) marker located on only the peripheral surface of the structure that delineates a circumference of each of the two or more cells of the structure to emit sufficient RF energy under MRI visualization to disturb hydrogen atom spins of at least one voxel,

as recited in independent claim 13. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 12 and 22.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's below listed attorney at (612) 236-0120 to facilitate prosecution of this matter.

CERTIFICATE UNDER 37 C.F.R. §1.8: The undersigned hereby certifies that this correspondence is being transmitted to the United States Patent Office facsimile number (571) 273-8300 on

May 13, 2008

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